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"NEC TENUI PENNA."

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EDITORS.

HUMAN ENDURANCE.

The following excerpts are from an interesting letter from Dr. J. C. Cutter, resident in Japan, to the Boston Medical and Surgical Journal of July 15th:

The Ainos, the Indians of Japan, are stout, thick-set, very hairy, and with very marked muscular development. They take but little sleep. Their digestive and assimilative powers are most excellent. They require only half as much rice per day as the Japanese coolie (about three fourths of a quart instead of a quart), and without making it up with fish or meat the Ainos will do more and endure more hardship. Upon such a diet they will carry two thirds of their weight on their backs; will cover eighteen to twenty miles per day through swamps and over hills; will continue such exertions for a series of days, and yet keep their condition, under the influence of an atmosphere surcharged with moisture on a July day.

The Japanese boatman, upon a diet of boiled rice and weak tea, with a kind of pickled radish not unlike dock-root for a relish, will row or pole for hours without intermission. Upon a similar diet, with an occasional bit of dried fish, will whirl you along in his two-wheeled "Pullman" at the rate of five to seven miles per hour. These men have been known to draw an adult Japanese gentleman fifty to sixty miles in one day, the same man going the entire distance. I am credibly informed that a Tokio man drew one man ninety miles in twenty-four consecutive hours. . . .

On March 22, 1880, Soma, aged fifteen years, accompanied by two young men, sixteen and eighteen years respectively (a child in Japan is one year old when born), left Tsuischari to walk to Sappow, distance, twelve miles. Just before starting, about 12 M., they partook of a lunch of rice, pickled radish, and tea. Each took with him two handfuls of boiled rice. One had in addition enough ginger pickled in plum vinegar and salt to serve for relish for two meals. They had no alcohol or tobacco. Each had a small half blanket in addition to the dress of their class—a cotton towel over their ears, an under-garment like a tunic reaching to the knees and opening in front, with large sleeves into which the hands can be drawn, of simple cotton, a cotton-wadded kimono, and a rough Aino coat made from the inner bark of a tree, cotton leggings, cotton shoe-socks, and straw sandals.

Owing to falling snow they lost the path. After wandering about until objects were scarcely visible, they sat down on the snow in the high swamp grass and ate all the rice they had with them, as well as most of the pickled ginger. They soon sank to sleep. That night, according to the records at the weather-station, Sappow, the wind was direct from the ice-bound Gulf of Tartary; minimum temperature, 24° Fahr.

In the morning they had no sensation in their feet or legs; they were unable to move from their resting-place. On the 23d, 24th, and 25th they disposed of *all* their food. On the night of the 28th the eldest ceased to speak. On the next day the middle one spoke his last audible words. From this time Soma lay in the same place, eating snow while it lasted, sipping water out of the adjacent pool, gesticulating and shouting to keep the carnivorous crows from their prey, his companions, having one desire—"to get home." These occupations filled his conscious hours. On account of the constant pain in his legs he did not sleep well.

On the morning of April 19th, attracted by the swarms of crows circling about and perched on the neighboring trees, searchers found the two dead and Soma speechless, pulseless, scarcely able to comprehend the saving party, staring at them with a vacant expression. They crushed some cold rice, added a little water, which they placed in his mouth, and a little of it reached his stomach. He was wrapped in blankets, and on a rude blanket litter reached the hospital at 5 P. M., April 19th, twenty-eight days from the time he left Tsuischari, and twenty-five days since the last pickled ginger was eaten.

When he reached the hospital he could not speak,

opened the mouth with great difficulty, and could not project his tongue, which had a white coating. Movements of the chest and abdomen scarcely to be detected; a low respiratory murmur to be heard; no pulse at wrists; impulse of heart very feeble; valve-sounds indistinct; profound torpor of the brain and intellectual faculties; body excessively emaciated; fat and flesh vanished; the abdomen retracted; eyes sunken deep in the sockets; no reflex action of arms or limbs when irritated. The buttocks were black, and had commenced to fall off; the feet were also black, and both legs were dead as far as the middle third.

Under the influence of warmth, stimulants, and mild food the pulse returned to the wrists the next day. Urine passed involuntarily when he came to the hospital. Upon the third day there was a small black discharge from the bowels. On this day he was able to answer a few questions, but slowly and with a very low and indistinct voice. Since the first week he has steadily improved, intellectually and bodily. The buttocks are now sloughing; the line of demarkation is forming upon both legs. His appetite is fair and steadily improving. His wan and vacant look is slowly vanishing. His mind is quite buoyant.

During these twenty-eight days the lowest daily "minimum" temperature was 18° F.; the average minimum was 33.6° F. The lowest daily "mean" was 26.67° F.; the highest mean 47.6° F.; and the average mean 37° F. On six of the days it snowed; upon five of them it rained; but few of them were cloudless, genial days.

The young man Soma is of medium stature and weight, of fair physique, and is inured to daily labor and exposure in this northern land. He belongs to the "soldier class."

This case is very interesting as an evidence of how long a man may live upon himself and water. While Soma had the cold part of the time to contend against, which necessarily increased tissue-waste, yet the cold, by cutting off the circulation in his legs by freezing them the first night, acted as a conservator of vitality. Had Soma cared to indulge in voluntary autoanthropophagy, he might have devoured his dead and useless legs with advantage. But this thought, although entirely practical, is not an altogether pleasant one. That Soma did not dine off his companions is probably accounted for by a circumstance mentioned in Dr. Cutter's letter—he could not reach them.

Dr. Tanner continues, at the writing of this note, on his fast, having accomplished three fourths of the forty days during which he declared himself able to go without food. There is no doubt that, whatever opinions may be formed as to Dr. Tanner's exploit after it has been accomplished, it has been a great puzzle to the physiologists. Now that he has continued thirty days, it is very easy to find any number of people who have gone a similar or a much longer period without food; but we take it that there was not a doctor in the country who, before he heard of it in this case, believed the man could have gone one third of the time without showing thrice the distress that Dr. Tanner has exhibited. Say what we will, the experiment of Tanner is an interesting one; and sneer at its results as we may, the experiment has at least as much scientific value as the majority of physiological experiments possess. In an economic point of view, it is certainly something to know that we eat too much.

Of course there is always going to be a doubt that Tanner has really fasted during all this time. All sorts of suggestions as to possible sources of supply have been made. Beef tea in sponges, through a tube running up the bedpost, etc. have been spoken of; but the man seems to be fairly exposed to public view, and these clumsy methods at least could hardly have escaped detection. The medical press appear to be divided about the matter. The Boston Medical Journal thinks the experiment far from conclusive, and builds its chief doubt upon the fact that Dr. Tanner and his crowd are eclectics. While in a general way we can see some logic in the Boston Journal's position, in the present instance it hardly satisfies inquiring friends. The New York Medical Record, which is closer to the ground, treats the affair with more seriousness and bulletins the results.

Since the objection was raised as to the irregular character of Dr. Tanner's watchers, arrangements have been made for a different set, and the watch now consists of an

eclectic doctor, a regular doctor, and a New York Herald reporter. It seems to us that this is a pretty hard guard to get by; and if Dr. Tanner can elude its vigilance, he is performing well-nigh as wonderful a feat as doing without food. Take it all in all, pending any dispute about the matter, we give it as our learned opinion that Dr. Tanner is living upon far fewer biscuits and considerably less beef than would satisfy us even during these anorexious days.

THE Boylston Prize for 1880 has been awarded to W. Watson Cheyne, F. R. C. S., Assistant Surgeon to King's College Hospital, for his essay upon "Antiseptic Treatment: What are its Essential Details? How are they best carried out in a Practical Form?" The essay was deemed so excellent that in addition to the prize the Boylston medal was added. As Mr. Cheyne is an assistant of Mr. Lister, his essay may be looked upon as partially official, and it will be read with great interest.

The questions proposed for the year 1881 are: I. The Effect of Drugs during Lactation on Nurse or Nurseling; II. Injuries of the Back without apparent Mechanical Lesion in their Surgical and Medico-Legal Aspects. For 1882: I. Sewer Gas: Its Physiological Effects upon Animals and Plants; II. The Therapeutic Value of Food administered against or beyond the Patient's Appetite and Inclination.

Communications in sealed packets with accompanying motto, and without any clew to authority, must be sent to D. H. Storer, M. D., 182 Boylston Street, Boston, Mass.

COUP DE FROID.—What practitioner of medicine has not long since grown weary and sick of that time-worn expression which is dinned in his ears every day of his life, that prime etiological favorite with the female sex and other ready and prodigal diagnosticians—"caught cold." There is no human being above the age of seven years who does not sometimes venture to suggest this diagnosis to the family physician. Its long familiar use has made it contemptible, not to say disgusting. The French phrase *coup de froid* offers an opportunity for a change. This term, literally signifying a stroke of cold, is really expressive; and to patients who do not know its meaning its novelty and mystery would make it attractive. How repressed — not to say sat down upon—the conceited grandmother of one child would feel were she gravely informed by the medical attendant that what she had been treating by goose-grease and arnica, in her very extraordinary grandson, as a mere cold, was nothing less than a *coup de froid*. How delightfully we could snub and confound for a while at least those pert and patronizing old women of either sex, who so often pester us with suggestions and advice in our practice. And, on the other hand, how much more complacently could Mrs. Nouveau Riche, for instance, endure the stirnutations and nasal liquidations, so to speak, of a *coup de froid*, than she does the sneezing and dripping and other bothers of a common cold.

HAVING a baby in Spain appears to be more than the usually disagreeable affair, at least among royal people. There has been a row among the physicians of the Spanish queen as to where the expected infanta is first to see his not-very-probable dominions. The Austrian wing of the medical council, which the queen brought with her from home, very sensibly wishes his royal patient to continue at the country seat whither she had gone to escape the heat of the city till the interesting event transpires. The Spanish doctors, on the contrary, who form unfortunately a majority of the council, along with the Prime Minister of Spain—who, it appears, is an expert in such matters—has determined to move back to Madrid, as being the only place where a proper publicity can be given to a royal lying-in. The affair seems to have created quite a stir in state and obstetric circles abroad, and Don and

Dr. Cæsar de Jackasse, one of the Spanish medical council, has resigned his learned seat.

THE LOUISVILLE COLLEGE OF PHARMACY. We call the attention of our readers to this estimable institution. Its corps of teachers is learned, experienced, and of the first order of ability. It is a school of which Louisville is justly proud, and in whose success every citizen is interested. Good druggists are little less necessary to human welfare than are good doctors, and bad ones are little less dangerous than bad doctors. The effect of this college upon the science and practice of pharmacy in Louisville certainly has been most beneficial.

THE regulars must look to their laurels, and not let a mere eclectic beat them starving; and yet it seems, with present prices, payments, etc. we ought to have some premium fasters.

THE Chian turpentine turns out to be principally chin.

Original.

THE OPIUM-HABIT AND INEBRIETY.

EDWARD C. MANN, M. D.

In a copy of your journal I notice a paper on the opium-habit, by Prof. E. R. Palmer, of the University of Louisville, in which the use of the fluid extract of coca is spoken of as a possible cure for this disease, for disease it very justly may be termed.

There is very little, or nothing comparatively speaking, in medical literature bearing on this subject of the opium-habit, and in nine cases out of ten a cure is impossible in the patient's own home, so that the medical profession have had to work against great disadvantages in their treatment of this disease. As a great many cases of opium-habit are admitted here for treatment—and with uniformly good results, not a single relapse having taken place in any instance, and as especial attention has always been paid to this class of cases—we are prepared to speak with some degree of authority respecting the nature of the opium-habit and its cure.

The effect of opium is invariably, although in different degrees, agreeable, soothing, and elevating; culminating, as opium-smokers describe it, in perfect bliss and complete oblivion. This state, however, is soon succeeded by languor, lassitude, loathing of food, aching of the limbs, gloom, and indefinable wretchedness, and these sensations are only relieved by increased indulgence, which gradually results in a complete demoralization of the moral as well as the physical nature. The same curse of destruction of mental and physical health rewards alike the rich and the poor. From the time when the indescribably entrancing repose following the use of opium occurs, may gradually be dated the bondage to the drug which eventuates in ruined health, prostrated business, and blasted hopes.

Many cases admitted here become victims to the habit from the use of the hypodermic syringe, first used to relieve pain, but subsequently kept up, as the patient finds himself or herself utterly unable to live without the stimulus of the opium or to combat the intensely disagreeable feelings which are present when the patient is not under the influence of morphia. The proportions of the fearful habit would be astounding to the medical profession as well as to society if they were fully known, as they date from the cradle, where opium is administered as a soothing quietus to infants, thus insidiously undermining the integrity of their nervous systems, up to the higher classes where the use of morphine is concealed even from the husband or wife, as the case may be, till the mental and physical sufferings become so intolerable that they confess to the physician and ask his aid to enable them to escape from the suffering, the sinking, the wretchedness and restlessness which they suffer from almost continually.

In many cases what at first proved a remedy becomes a gratification, and imparts calmness, passiveness, and agreeable indolence, and an intense subjective sensibility at times, so that the appreciation of society or of music is heightened by the abnormal condition of consciousness. The unhealthy moral manifestations are many. Among them are found abolition of natural ties and affections, estrangement from a patient's own family and indifference to them, an utter disregard of truthfulness and sincerity, and a complete inability to exercise

the will in any direction, except for the gratification of his craving for opium. Such patients, if confirmed *habitués*, are apt to exhibit a disregard of the duties due to themselves and others, and to be, as in the case of the natives of Singapore, who use opium largely, untruthful, cunning, treacherous.

Sterility and impotence result from this habit, as there is an extinction of the reproductive propensities. There may be perversion of hearing and vision, and an augmented or diminished sensibility, as the case may be. There are also troublesome tremors. There is apt to be less of control of the muscles, and an unsteady gait. Some intellectual men take morphine to enable them to think or write better, and I know a lecturer in one of our medical schools who is in the habit of taking morphine before lecturing in order that his faculties may become clear, and his ideas brilliant, precise, and under his control, and his conversational energies improved. Opium, however, will not produce any such effect in illiterate or stupid persons. The action of opium suspends and permanently enfeebles volition and conscience. Whether this is due to its agency upon cerebral substance, that is, whether it is imbibed by the nervous tissues, and creates by such imbibition changes incompatible with pain, for instance; or whether by its action on the brain the will directs the attention of its influence to structural or moral suffering, as the case may be, is a very difficult problem for psychologists. It would seem that the suspension and enfeeblement of the moral faculties produced by opium, while the intellectual faculties remain unimpaired, should depend rather upon a relation between opium and sensibility and consciousness than upon the relation which it has to cerebral substance. A very disagreeable symptom which opium-eaters or *habitués* suffer from is a general hyperesthesia; and the painful nervous susceptibility often becomes so acute that even a jar from a footstep becomes unendurable, while the neuralgic twinges that result from opium shoot along the nerves until the unhappy sufferers, body and mind alike, are shattered from the prolonged torture.

When a man has once yielded himself up to the mastery of this habit or appetite, the soul becomes contaminated, the moral sense obliterated, and all the finer susceptibilities and nobler aspirations decline and fade away. The aim in his life becomes erratic and purposeless, and the *habitué* has the misery and the curse of seeing his children inherit the physical expression of general enervation and the mental aspect of dullness and idiocy. These children, with their feeble, broken-down constitutions, inevitably fill, as they grow up, our prisons, alms-houses and insane-asylums, while a great many infants, as I have before remarked, who inherit fairly good constitutions from their parents, are poisoned by that Nemesis of the nursery, paregoric; and the early mortality of such children, with the record of post mortems, reveal that this results in serous effusion of the brain, and in some cases even degeneration of brain-substance itself.

One of the saddest things connected with this habit is the fact that voluntary renunciation of opium by one who has become addicted to its use is unknown to the medical profession. I have treated several of the ablest members of our profession, who have come on to New York from distant parts of the country to place themselves under my care, and every case had tried faithfully and honestly to break up the habit themselves without success. In every instance the sufferings which they underwent while at the minimum doses, and when, as they thought, they were almost off from opium, so racked the nervous system that they gradually ascended the scale again, and after trying this again and again, finally abandoned the struggle as useless and came here for systematic treatment.

When not taken for the relief of pain, opium is generally taken to stimulate but not to disturb the mind, to soothe irritability, to induce placidity, pleasurable feelings, gentle and friendly relations; to restore the strength and activity enfeebled by previous indulgence, and to render the partaker himself capable of discharging his duties and occupations by imparting an artificial and temporary health which at once deceives the victim and baffles the keenest scrutiny. A wan and withered man or woman will apply for treatment with bent figure, slow step, tremulous hand, features pale and haggard, eyes sunken and lusterless, and the patient would appear to the ordinary observer as a man or woman tottering on the verge of life. Let such an one take his ordinary dose of a solution of morphia hypodermically or otherwise, and observe the result. The transformation to a non-professional observer is something miraculous. The gait is firm and assured, the muscular system is restrung, the face has grown in roundness and fullness, and is flushed as in youth; the eye is clear, sparkling, and restless; the conversation of our patient is cheerful and fascinating. But

in a short time his rejuvenescence will fade away into the former spectral appearance.

Opium is resorted to among our higher classes to blunt care, to dry the tears of grief, to calm the tremors of the terror-stricken, and lull clamorous consciences to the coveted rest. In addition to this the wear and tear of our hurried life, and the nervous prostration so common among fashionable women, are temporarily relieved by this habit. When the opium-habitué awakes to a consciousness of his real position it is pitiable in the extreme to know that this state can only be relieved by new and perhaps increased indulgence. There is probably no more terrible suffering than the complete exhaustion, the prostration of mind and body which these patients undergo. The control over the muscles is lost, and epilepsy, paralysis, and an unsteady and ill-balanced gait are all frequent symptoms of this terrible disease. These patients have a full consciousness of their position, but are powerless to emancipate themselves, even if the sufferer be a physician. Their miseries and anguish are extreme, but in spite of all efforts they find themselves forced back again into the habit. These cases, above all others, need medical aid and systematic treatment, and while I cheerfully give to the profession the results gained at "Sunnyside," I am most emphatic in saying that I do not believe patients can be successfully treated in their own homes. I am so thoroughly convinced of this, and am so well satisfied of the necessity of the most watchful care and nursing, complete immunity from the cares and annoyances of daily life and of business, that I always decline to treat such patients in their own homes, as I am frequently requested to do, assuring them that in my opinion such a course of treatment would prove alike unsatisfactory to physician and patient.

The plan of treatment adopted here seems, after a fair trial of nearly all remedies heretofore suggested, including the fluid extract of coca, spoken of by Dr. E. R. Palmer in his paper alluded to in the beginning of this article, to be the best plan of thoroughly curing and eradicating the opium-habit successfully, and as not one relapse has occurred, it may fairly be considered not only a perfect cure, but one which entails no suffering on the patient. We employ at "Sunnyside" a slow, reductionary course of treatment, the dose of morphine being diminished gradually, thus avoiding suffering and nervous prostration; and by the administration of the bromides in combination for about ten days, at the end of which time the maximum of sedation and the minimum of opium is arrived at. During this period if our patient be sleepless, which generally he is not, we administer half grain ext. cannabis indica to procure sleep, but *never* chloral, as it is very injurious in its effects at this time. The patient is now, after the opium is entirely withdrawn, put on diuretics and a course of warm baths, to eliminate the bromides, which have, by their action on the kidneys, produced a pretty free diuresis, and a milk diet is instituted for the time to guard against the diarrhea which now often tends to appear. At this time the patient is most likely to suffer from sleeplessness, and now chloral in combination with hyoscyamus may be given to the patient, with instructions to take it if he wakes up in the night and finds himself unable to sleep again, as is sometimes the case, the sleeplessness generally occurring after midnight, the patient resting well up to that time. The daily use of electricity as a substitutional stimulant and tonic to the nervous system, now proves a sure and efficient means of stimulating the central nervous system, and also invigorating it, so that the loss of the opium *causes no suffering at all* to the patient. The stimulating and tonic properties of the electricity, faradic current, seem to supply the place to the nervous system of the opium, and in addition a tonic containing $\frac{1}{32}$ grain of strychnia to the dose together with phosphorus and quinia, is given to excite reflex action and build up the nervous system. The patient's appetite now improves; he gains from fifteen to thirty-five pounds of flesh; loses his withered appearance; and regains his natural health and happiness. In from four to seven or eight weeks is discharged perfectly cured.

The physicians who have been here as patients are among the warmest friends we have, as they appreciate even more than the laity what is done for them and their restoration to health, most of them having undergone the torture of endeavoring to cure themselves.

There is no one remedy, in our opinion, whether coca or any thing else, that in itself is an antidote to opium, and which eradicates the habit. The treatment which I have endeavored to make plain is systematic, and involves great care and attention and the best of nursing, and with such care and attention a cure will be invariably obtained not only with no suffering, but with no chance of a relapse.

FORT WASHINGTON, N. Y.

Miscellany.

THE FORMATION OF CALLUS.—Brit. Med. Journal: MM. Rigal and Vignal presented a note on this subject before the Paris Académie des Sciences, which is reported in the *Gazette Hebdomadaire* of June 4th. In 1865 M. Ranvier, in his *Thèse de Doctorat*, and in 1869 MM. Cornil and Ranvier, in their *Manual d' Anatomie Pathologique*, taking experiments as their basis, showed that the callus in simple fractures, in the human subject as well as in animals, in the first instance went through a cartilaginous stage, while in compound fractures it became directly bony in the midst of fleshy granulations proceeding from the medullary substance of the fractured bone. M. Ranvier further demonstrated that the suppurative inflammation had no influence on the progress of ossification in the cartilaginous callus when this was already formed. The writers made the following experiment: From the middle third of the tibia of a full-grown rabbit they removed the periosteum three or four times in succession, so as to thoroughly destroy all its osteogenic properties; then a fortnight after the last removal they fractured the bone in the center. Twelve days after the fracture (at that stage there is always a cartilaginous callus in the rabbit) the animal was killed, and the examination of the fracture showed that in the midst of the fleshy granulations, proceeding from the enlarged canal of Havers, a distinctly bony peripheric callus had formed. This experiment, several times repeated, always yielded the same results. The following experiment is still more conclusive: The periosteum was removed on two occasions at an interval of a fortnight. The wound being cicatrized, the bone was broken in the middle, as in the first experiment, and the animal was killed twelve days subsequently. At the posterior part, where the periosteum had been preserved, the callus had formed, as in simple fractures, by the aid of cartilage; while at the anterior part it was formed in the midst of fleshy granulations, as in suppurating and compound fractures. These experiments seem, then, to prove that the subperiosteal layer, when the irritation is active, as in fractures, contributes to the repair of the bone by becoming transformed into cartilaginous tissue. In another experiment, made upon the same animal, the other conditions besides those to be created being exactly the same, after having divided the skin of one of the legs and carefully put aside the muscles till the periosteum was reached, the latter was somewhat strongly irritated by rubbing it with a highly-polished surface—an agate burnisher, for instance—taking care not to touch the adjacent parts. On the opposite leg the periosteum was irritated by thoroughly breaking up the adjacent soft parts, so as to bring on a sanguineous effusion. Then both wounds were closed by points of suture, and the animal was killed between the tenth and twelfth days. If union of the wounds in both legs by first intention had been obtained, some osteophytes would have been found under the periosteum of the first, while under that of the second larger or smaller cartilaginous masses would have been found. The last experiment explains the directly bony formation of the points of subperiosteal callus the farthest from the seat of fracture.

DRUNKENNESS AND SUICIDES.—From statistics collected by a director of an asylum for drunkards in Germany, the number of suicides has lately increased in every country in Europe except Norway. In Norway there has been an average of nine per cent fewer cases of suicides during the last ten years than in any preceding ten years—a fact which the German writer attributes to the stringent regulations against drunkenness in force there. In most German countries suicides have increased from ninety to one hundred per cent. For each million of inhabitants there are, on an average, every year in Saxony three hundred cases of suicide, in Denmark two hundred and eighty, in Wurtemburg one hundred and eighty, in Mecklenburg one hundred and sixty-seven, in Baden one hundred and fifty-six, in Prussia one hundred and thirty-three, in Austria one hundred and twenty-two, in Bavaria one hundred and three, in Sweden eighty-one, in Belgium seventy-three, and in Norway forty. —*Med. Times and Gazette.*

WOOD PAVEMENT.—The Corporation of Dublin, at a meeting held this week, resolved that the thoroughfares about to be paved in that city should, opposite hospitals, places of worship, schools, etc., be laid with wood pavement.—*Lancet.*

FIRE BURIAL.—Since 1876 up to the present time there have been sixty-eight cases of cremation at Milan. The last body thus disposed of there was that of Giovanni Polli, the "apostle" of cremation.—*Medical Times and Gazette.*

LENGTH OF LEGS.—Dr. Morton, of Philadelphia, has measured the legs of five hundred and twelve boys from eight to eighteen years of age. In two hundred and seventy-one he found inequality of length. In two hundred and forty-one there was no appreciable difference. Ninety-one showed a difference of one eighth inch, one hundred of one fourth inch, forty-one of three eighths inch, twenty-two of one half inch, twelve of five eighths inch, two of three fourths inch, two of one inch and an eighth, one of one inch and five eighths. In these cases the right limb was the longer of the two in one hundred and ninety-eight cases, and the left the longer in the remaining seventy-three. None of these boys had suffered from injuries or diseases of the bones or joints of the extremities, and none of them were aware of the shortening. These, like all carefully-observed facts, are of value; but it would be perhaps still more conclusive if similar results were found in adults, because there is a great difference between inequality in rate and inequality in extent of growth. The teeth on the two sides of the jaw are not always cut exactly at the same time, though when the process of dentition is complete bilateral symmetry is secured. It would be satisfactory, therefore, if measurements could be made, say of a regiment of soldiers, with a view to corroborate or correct the results of Dr. Morton's measurements. This investigation is important. Already it has rescued a doctor in America in an action for malpractice, in which the plaintiff claimed damages on account of three fourths of an inch shortening after fracture of the thigh. In addition to evidence that inequality of the limbs is not infrequent, a lad in court was measured, and his limbs showed a difference in length of three eighths of an inch. This at once led to a nonsuit.—*Lancet.*

SPINAL CONCUSSION OR HYSTERIA.—An action for damages laid at £2,500 for personal injuries sustained by a forewoman in a milliner's shop, through the alleged negligence of a well-known firm of Dublin apothecaries, was tried before Lord Chief Baron and a special jury last week (British Medical Journal). While passing one of the defendant's establishments a shutter, which had been carelessly placed by the porter against the shop, was blown down by the wind, and in falling struck the plaintiff in the back of the head. The carelessness and the injury were admitted, and the plaintiff was offered a sum of £500 as a solatium. This, however, was refused, and the action was taken. A large number of medical witnesses were examined on both sides, and the usual much-to-be-regretted contradictory scientific evidence was given. On behalf of the patient it was sworn that she had suffered concussion of the spine, and would probably never fully recover her former health. For the defendants it was pleaded that she was suffering more from hysteria than from organic disease, and that in all probability she would eventually regain perfect health. The jury took this view, and awarded the lady only £350. There was some very remarkable medical evidence given for the plaintiff, that caused much astonishment in the minds of some of the medical as well as the legal profession present who heard it enunciated.

THE CAUSE OF OBESITY.—Dr. Emil Querner says, in the Boston Journal of Chemistry: In regard to obesity, my experience at numerous dissections suggests the fact that the morbid accumulation of fat in the body (namely, more than one twentieth part of the weight of the whole body) is mainly due to relatively too small lungs, and the consequently insufficient oxidation of the fat of the blood during respiration and the deposition of the same in the cellular tissue. Inactivity of the skin and of the liver seem to be minor agencies for this morbid process, which is augmented by gluttony, long sleep, and sedentary habits. The observation that the use of beer and whisky causes persons to become fat is explained by the fact that these beverages check to a certain degree the expansion of the lungs during respiration.—*Clinical News.*

EUCALYPTUS AND MALARIA.—"There are eight hundred square mles of more or less malarial Campagna," says a correspondent from Rome, in the British Medical Journal. He has no faith in the eucalypti as preventives or destructives of malaria. He also says: "*The* remedies for the Campagna would be draining and cultivation, not planting it on any large scale nor with any particular tree, and it is to the support of a scheme of this kind that all my efforts have been directed for many years. . . One word as to the value of the eucalyptus as a medicine: I have used it frequently, and I can only say that the man trifles with the life of his patient who treats with preparations of eucalyptus only any severe case of pernicious malarial fever in the climate in which that fever has been contracted."

COLOR-BLINDNESS AS A CAUSE OF RAILWAY ACCIDENTS.—Dr. Keyser, who has spent eight months in examining train employes of railroads that center in Philadelphia, has found color-blindness in three and a half per cent of the whole number so marked that they were not able to distinguish one color from another, while eight and a half per cent, although able to tell colors, were unable to distinguish shades, and were thus rendered incapable of performing duties required of railroad men. Two of the color-blind men had educated themselves to know that red is a bright, intense color, as distinguished from green, which they described as dull; but when light green was put before them they called it red. They explained that the green light had at times shown red to them, and they had stopped the trains. But suppose the red had shown green!—*British Med. Journal.*

STARVED IN WEALTHY LONDON.—According to a parliamentary return recently issued there occurred in the metropolis last year eighty deaths on which coroners' juries returned verdicts of death from starvation, or death accelerated by privation.—*Med. Times and Gazette.*

A SENSIBLE SUGGESTION.—We find in the Registrar-general for Ireland's quarterly report (British Med. Journal) that the district registrar at Donaghmoyne, Carrickmacross, writes: "I would think it very desirable, as having a sure tendency in promoting the public health, if the reading of some elementary treatise upon sanitary science were made compulsory and encouraged by the national schools, the medical officers of health to have control over the same in their respective districts." It is quite certain that the sanitary condition of the people is to a great extent in their own hands, and that no enactments, nor even wholesome dwellings and pure water-supply, will be thoroughly utilized until the people are educated to know their value and to coöperate with the authorities who provide these sanitary requisites, by personal cleanliness and healthy habits.

DEATH OF PROFESSOR POLLI.—The *Gaz. Med. de Lombardia* announces the death of the distinguished chemist Professor Polli, so well known through his researches on the Sulphites. He was editor of the *Annali di Chimica applicata alla Medicina.—Medical Times and Gazette.*

Selections.

On Glycerin in Flatulence, Acidity, and Pyrosis.—Sydney Ringer, M.D., and William Murrell, in the Lancet:

An old gentleman, who for many years suffered from distressing acidity, read in a daily paper that glycerin added to milk prevents its souring, and he reasoned thus: "If glycerin prevents milk turning sour, why should it not prevent me turning sour?" and he resolved to try the efficacy of glycerin for his acidity. The success of his experiment was complete, and whenever tormented by his old malady he cures himself by a recourse to glycerin. Indeed he can now take articles of food from which he was previously compelled to abstain, provided always that he takes a dram of glycerin immediately before, with, or directly after his food. He recommended this treatment to many of his friends (sufferers like himself) and one of these mentioned the above circumstances to us.

We have since largely employed glycerin, and find it not only very useful in acidity, but also in flatulence and pyrosis, and that it sometimes relieves pain. We meet with cases where flatulence, or acidity, or pyrosis is the only symptom, but more frequently these symptoms are combined. Some patients rift up huge quantities of wind without any other symptoms than depression of spirits; in others we get flatulence and acidity, one or other predominating; and we meet with others who suffer from acidity, flatulence, and also pyrosis. In all these various forms we find glycerin useful, and in the great majority of cases very useful. We do not mean to say that in all cases it is superior to other remedies for these complaints; indeed in several instances it has only partially succeeded, where other remedies at once cured. On the other hand, in some cases glycerin speedily and completely succeeded, where the commonly-used remedies for acidity and flatulence completely failed. We do not pretend to estimate its relative value to other remedies; we are only anxious to draw attention to its virtues.

Gas is in some instances formed in the stomach, in others in the large intestine, in some patients in both. Our observations were made on stomach flatulence, and as glycerin is so readily absorbed we should hardly expect that it would influence the formation of wind in the colon, except given in large doses, and when it acts as a slight laxative, and so expels the putrefying mass which forms the wind.

In some cases it removes pain and vomiting, probably like charcoal, by preventing the formation of acrid acids, which irritate delicate and irritable stomachs.

We suggest that it acts by retarding or preventing some forms of fermentation and of putrefaction. J. Mekulics (*Archiv. f. Klin. Chir.*) shows that glycerin prevents putrefaction of nitrogenous substances, as of blood diluted with water, which speedily decomposes at the ordinary temperature of the air. Two per cent of glycerin retarded decomposition for twenty-four hours; ten per cent for five days. If the fluid were placed in the hatching-oven, then two per cent retarded decomposition for several hours, ten per cent for forty-eight hours, and twenty per cent altogether prevented putrefaction. He also proves that glycerin destroys bacteria and prevents the formation of septic poison, though it will dissolve and preserve the septic poison itself.

Dr. E. Murk (*Virchow's Archiv.*) finds that two to three per cent will delay lactic fermentation in milk from eighteen to twenty-four hours.

Burnham Wilmot, 1860, says glycerin preserves meat so that after several months' immersion the meat is sweet and can be eaten; and Demarquay proves that both animal and vegetable substances may be kept for six weeks to two months by glycerin.

Glycerin, however, does not prevent the digestive action of pepsin and hydrochloric acid; hence, while it prevents the formation of wind and acidity, probably by checking fermentation, it in no way hinders digestion. We administer a dram to two drams either before, with, or immediately after food. It may be given in water, coffee, tea, or lemon and soda-water. In tea and coffee it may replace sugar, a substance which greatly favors flatulence, as indeed does tea in many cases. In some instances a cure does not occur till the lapse of ten days or a fortnight.

Illustration of the Specific Aspect of Pneumonia.—James Russell, M.D., F.R.C.P., in British Medical Journal:

"Pneumonia," justly observes Dr. Sturges, "occupies a middle place between the specific fevers, so called, and the local inflammations, and has something in common with both." The following particulars, simple in themselves, given to us by a very intelligent wife, whose husband was attended for fatal pneumonia by my friend Mr. Wilders and myself, together with the subsequent history, emphasize that part of the analogy which connects the disease with the specific fevers, in a manner which is probably more frequently accessible, were the introductory stages as carefully observed.

The case occurred in the person of a gentleman aged seventy, of large build and vigorous constitution, but somewhat emphysematous. During the week preceding his illness my friend had been attending him for an unimportant digestive disorder. On the Wednesday he was thrown into a state of intense excitement by a very unpleasant business transaction, and was found by his servant in a state of extreme agitation and tremor. On Friday afternoon he was somewhat exposed to the very cold east wind lately prevailing, and a little again on Saturday. On that afternoon his wife, on her return from an absence from town of some days' duration, found her husband sitting in his greatcoat over a large fire; this, however, was his custom when he thought himself to have taken cold. She thought him pale and rather pinched. He passed a good night, but on the following morning (Sunday) she determined not to go to chapel, as she thought him unwell. He, however, denied being ill, and persuaded her to leave him; but he did not take his usual dinner, and immediately the meal was ended left the table, refusing dessert. Soon afterward, however, he asked for an orange to allay his thirst. During the afternoon he was very thirsty, drinking repeatedly and through a great part of the night was getting up, sometimes every hour, to drink milk or water. In the morning of Monday he readily acceded to his wife's suggestion that he should put off receiving some friends till he was better. On the same morning the only abnormal condition which Mr. Wilders could discover was some pain in left haunch, which soon disappeared. The chest was even unusually free from morbid sounds; the pulse was 74. In the afternoon, being called upon to write a letter, he found himself unequal to the undertaking, and had to hand it over to his wife, only appending his signature; and having to inclose a second letter in the same envelop he became confused, and she had to give him help.

During the night he became more confused; was getting out of bed continually to pass urine, and on one occasion forgot his purpose and returned to bed, having again to get out in a few minutes. As morning broke the confusion had passed into mild delirium; and at 10 A.M. (Tuesday) Mr. Wilders found his temperature 104.5°, pulse 136, with mental confusion, and scanty but very characteristic rusty expectoration. The urine was free from albumen. He died at 11 P.M. the next day, from failure of the heart, the pulse exceeding 200 to the minute, and the intellect being very confused. The temperature, which had fallen in the morning to 102.4°, had risen above 105°. The expectoration continued scanty; the urine was copious.

He afforded remarkable attestation to the fact that high pyrexia does not necessarily destroy digestion, inasmuch as, with his high temperature, he relished solid food to the last; he ate the breast of a chicken on the day preceding his death; and on his last day ate a chicken sandwich more than once, my colleague most judiciously following the lead of his patient's desire. The tongue was moist throughout. There was a commencing herpetic eruption on the lip. Respiration was 30–36. The single physical examination we were able to make discovered dullness with crepitation quite at the base of the left lung.

Milk and Limewater.—Milk and limewater are frequently prescribed by physicians in cases of dyspepsia and weakness of the stomach, and in some cases are said to prove very beneficial. Many persons who think good bread and milk a great luxury frequently hesitate to eat it for the reason that the milk will not digest readily: sourness of stomach will often follow. But experience proves that limewater and milk are not only food and medicine at an early period of life, but also at a later, when, as in the case of infants, the functions of digestion and assimilation are feeble and easily perverted. A stomach taxed by gluttony, irritated by improper food, inflamed by alcohol, enfeebled by disease, or otherwise unfitted for its duties—as is shown by the various symptoms attendant upon indigestion, dyspepsia, diarrhea, dysentery, and fever—will resume its work, and do it energetically, on an exclusive diet of bread and milk and limewater. A goblet of cow's milk may have four tablespoonfuls of limewater added to it with good effect.—*Exchange.*

Cocaine is the alkaloid derived from the leaves of *Erythoxylon coca*, or cuca, as it is sometimes called rather than coca (St. Louis Clinical Record). Dr. Roberts Bartholow states that it acts, like theine and caffeine, as an indirect nutrient, by checking waste, and hence a less amount of food is found necessary to sustain the economy under its use. This is the reason, he thinks, that it lessens fatigue and increases the respiratory powers. He is also of the opinion that it would prove useful in phthisis, in wasting diseases, and in convalescence from acute disorders.

Phosphate of bismuth is recommended by M. Tedenat, of France, as superior to subnitrate. It acts in smaller doses, being more soluble, and is applicable to the same conditions for which the subnitrate is employed. The dose is one to two grains for an adult.

A Case of Double Epiglottis and Double Voice.—Dr. Thos. R. French, in the Annals of the Anatomical and Surgical Society:

The case is that of a man, thirty years old, born in this country, by occupation a singer and contortionist at variety shows. He came to me complaining of a weakness of the voice; that he could not always grasp the note at the beginning of a piece or turn of a song. He has the ability to command with ease the chest and the falsetto registers, and in singing has a baritone and a falsetto voice. Neither gives him the least discomfort, and in ordinary conversation he has no preference as to which to use. In his family he uses the high voice entirely, but in business prefers the low voice. He uses either according to habit or association, and asserts that many of his friends are not aware that he has two voices. He gained the extra voice when he was sixteen years old. In singing he always uses the high voice, as with it he can command a greater compass. In the high voice he has the upper and lower range in the falsetto register, and can run the scale from A to F. The compass of the low voice is so small that he can not reach the high notes of an ordinary song with it, and in singing only uses it to break into the falsetto voice and produce a sensation. He may be said to command the lower range in the chest-register, and can run the scale from A to A. His throat externally is very prominent on account of an angular curvature of the spine in the dorsal region. The cricoid cartilage is large, and has a deep V-shaped notch in its upper border. The mouth and throat above the base of the tongue are quite normal in shape and condition. There is a marked double arrangement of the glandular tissue at the base of the tongue. *The epiglottis is double.* The right half of the cartilage overlaps the left to a slight extent. The division in the mucous membrane extends down to the median glosso-epiglottic fold, but the division in the cartilage must extend further, as during the production of the falsetto voice the lateral halves move inward, as if they were hinged in the middle. The difference in the length and width of the cords, as well as the elliptical opening in the falsetto register, and apposition in the chest register, can readily be demonstrated.

As to whether the peculiar formation of the epiglottis has any thing to do with his ability to command the two voices, I am not prepared to say; but it is very probable that it has, for when the sides of the epiglottis are drawn in during the formation of notes in the falsetto register, the caliber of the laryngeal cavity is decreased to a considerable extent, and thereby probably renders the production of the falsetto voice easier.

Treatment of Hemorrhoids by "Crushing." Mr. George Pollock has an article on this treatment in the Lancet of July 3d. The instruments figured are not unlike bullet-molds, and this latter instrument would doubtless mash the tumors successfully, but we doubt if many patients outside of hospitals will submit to such treatment.

Nerve-stretching as a Remedy for Sciatica. Dr. Jas. P. Bramwell reports, in the British Medical Journal of June 19th, cases of cure by this means.

The case of an infant nine days old with pyemia, followed by recovery, is reported in the Annals of the Anatomical and Surgical Society.

Treatment of Constitutional Syphilis by Sulphate of Copper.—Drs. Martin and Oberlin (Medical Record) gave a brief report upon this subject at a late meeting of the Paris Academy of Medicine. The authors treated fifty patients, who showed various manifestations of syphilis, by the copper sulphate. The results were quite satisfactory, the fifty patients all being cured. A comparison of this method was made with the ordinary mercury methods, and it was found that the copper salt proved more efficacious and required less time for its beneficial action than did the mercury salts. The copper was also well borne by most patients. In only one case it produced initial vomiting, followed, however, by permanent tolerance of the drug. In a case of very grave syphilis, when mercury had proved useless, the administration of copper effected a rapid and complete cure. In a few patients the gums became affected, a greenish tint appearing at their free border. But this cupric gingivitis yielded more rapidly than the analogous mercurial affection ordinarily does. Actual sponginess of the gums was not observed. The salt was exhibited by the mouth in doses of one sixteenth to one sixth of a grain per day. An aqueous solution was employed. External application was also made by adding five drams of the salt to a full bath.—*Gaz. Méd. de Paris.*

A New Remedy for Chronic Cystitis and other Chronic Inflammations.—Frank H. Hamilton, M. D., read a paper on this subject before the New York Academy of Medicine. In August, 1875, he was consulted by G., aged sixty-three, for chronic cystitis. The patient had always been of temperate habits, except in tobacco. He had for a long time worked extremely hard, neglecting his health. A year before consulting Dr. H. he had been obliged to cease work on account of cystitis. He tried quite a number of remedies with no success. When seen by Dr. Hamilton he was emaciated and weak. He had to pass his water every half hour or hour, and at times suffered intense pain in the bladder. Appetite and digestion were impaired. He had no stone nor enlarged prostate. His urine contained about twenty-five per cent of pus with renal casts.

He was advised to drink flaxseed tea for its aperient and diuretic effect, to take a hot bath every night, and to ride horseback every day. The flaxseed tea was soon given up, as it disturbed digestion. The hot baths were soon discontinued. The plan of horseback riding was at first protested against, as the least jolting gave him great pain. It was, however, undertaken. At first the horse was walked very slowly. At the end of a month he was able to ride two miles. At the end of two months the pus had disappeared from the urine, and in six months he was completely well.

Dr. Hamilton said that this was not the only case which he had seen benefited by the same kind of treatment. A physician of New York City had suffered for a long time from chronic cystitis and pyelitis. Medicines and rest had been faithfully tried, but with no effect. He finally began drinking flaxseed tea and riding horseback. He was completely cured, but ascribed some of the good to the flaxseed tea.

Another physician with whom he was acquainted had suffered in the same way, and had been cured in much the same manner, though in this case the patient had driven in a carriage more than he had ridden.

Extraordinary Case of Ascaris Lumbricoides. Dr. Fauconneau-Dufresna relates (Med. Times and Gazette) the following case (*Union Médicale*) which, as regards the number of worms discharged, he believes to be unique:

In the year 1876 a lad, twelve years of age, exhibiting some symptoms of worms, some chopped garlic boiled in milk was administered to him, and in the course of the day he passed at different times fifty ascarides lumbricoides. He continued to pass more and more every day, so that he evacuated as many as six hundred in the same day, the worms being enveloped in a mucus resembling the white of an egg in appearance, and rolled up in a ball, separating themselves after their ejection. At first they were only passed by the anus, but in a short time they were expelled also by the mouth, and in the end exclusively by the latter. During five months he did not fail to discharge worms daily, generaliy from three hundred to four hundred.

When Dr. Fauconneau-Dufresne first saw the boy, in July, 1878, he had passed fewer for some time past, and he found him with a pale, puffed, and very emaciated face, eating much, but usually vomiting the food soon after he had taken it. Sometimes the worms were expelled with the food, but generally they were voided alone. The worms were discharged living, were five or six inches long and about as broad as a quill. Besides the garlic he had taken some pomegranate, and now castor oil and calomel, together with occasional doses of garlic, were prescribed. This treatment produced a continuous diarrhea; but he had a good appetite, passed fewer worms, and was able to go out, and even to school. Seen again in January, 1879, when Corsican moss was prescribed. The worms were passed less frequently during this month, and in smaller numbers, and almost always dead. During February the moss was continued, with occasional purgatives, and the worms were much fewer and dead. In March and April both dead and living worms were discharged; and at the end of the latter month santonin and calomel were prescribed. These had to be suspended from time to time, but the number of worms kept continually diminishing, and from August, 1879, to May, 1880, none whatever had appeared.

The total number of worms counted during the three years, and for the most part ejected by vomiting, was 5,126; many more than this having also been passed without having been counted. The greatest number recorded by M. Davine amounted to 2,500, which were passed in the course of five months.

The Kola Nut of Africa.—The value of the kola nut as a drug consists in its sustaining and bracing power on the human system. This appears to be somewhat similar to that claimed by the Peruvian mountaineers for the coca leaf. By the natives they are asserted to promote digestion and ward off inordinate danger, to relieve thirst, to sustain physical strength, and to give endurance under prolonged exertions.

Picropodophyllin.—This is the name given to the active principle of podophyllin, a white crystalline substance, discovered by Dr. Podvisotsky, of the University of Dorpat.

For Sore Nipples.—℞ Tannin, ʒi; subnit. bismuth, ʒii; vaseline, ℥i. M. Sig. To be applied constantly when the child is not nursing.

Danger Attending Administration of Chian Turpentine.—Mr. William F. Marsh Jackson writes to the British Medical Journal: A patient of mine suffering from cancer of the pancreas, eager to catch at any straw, procured, unknown to me, a box of chian-turpentine pills from Mr. Clay, of Birmingham. She took in all about thirty pills, when, finding herself no better, but rather worse, she discontinued the medicine. She began the pills on April 27th. On May 25th, or about three weeks after taking the last pill, she vomited a solid, sticky, yellow, fish-shaped mass, smelling strongly of turpentine, weighing one hundred grains, and measuring two inches and a half by three quarters of an inch, and being in depth a quarter of an inch, apparently a crude undigested block of chian turpentine.

Oleate of bismuth in catarrhal and gouty eczema, and in gonorrheal and otorrheal discharges, is commended, in the British Medical Journal, by Dr. Louis Lewis.

Cerebral Thermometry.—Dr. Franck, in a paper which he read at the Biological Society, observed that he was of opinion that the clinical observer could derive no precise indications from cerebral thermometry (Medical Times and Gazette). Prof. Paul Bert stated that he was nowise surprised at M. Franck's conclusions, and it is for this reason that he had himself abandoned the researches he had undertaken on this question. In fact, it has now been amply shown that with the exception of the two facts—first, that the temperature of the anterior part is raised under the influence of intellectual exertion; and secondly, that a similar elevation takes place in the same points in an infant on awakening—there is no conclusion to be drawn from local thermometry applied to the brain.—*Gaz. des Hôp.*

The treatment of asthma by hypodermic injections of pilocarpin is highly recommended by Dr. Berkart, in the British Medical Journal.

Morphine in Puerperal Eclampsia.— Dr. C. C. P. Clark recommends (Amer. Jour. of Obstetrics) in cases of eclampsia the hypodermic injection of *a grain and a half of morphine;* and "if you guess at the quantity, unless an expert at it, double the dose." In support of this heroic dosing Dr. C. says, "Why should this peculiar *intolerance* be incredible? It is but the analogue of the way in which the same medicine is borne in peritonitis; alcohol in snake-bites, typhoid fever, and so on." Then, in consideration of the skeptical doctors, Dr. C. compromises the matter like St. Paul, "'so I may win some.' Let my reader give *one* grain only, repeating it according to my directions on occasion. I think that that will *always save* the patient." [The italics are our own, and are meant as beacon-lights.]

Cesarean Section ending Fatally.—A case of abdominal pregnancy treated by laparotomy, by Dr. Montrose A. Pallen, is reported in the Amer. Jour. of Obstetrics. The diagnosis was not made until the incisions revealed the state of affairs. The obscurity of the case was due to the extreme height of the cervix, making an examination through its canal utterly impossible. The diagnosis before the operation was "that of extreme anteflexion of the cervix and encapsulization of the head, with a retroflexion in the excavation."